

REMARKS

Favorable consideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-17 are presently pending in this application, Claims 1, 16 and 17 having been amended by the present amendment.

In the outstanding Office Action, Claims 1-16 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tybinkowski et al. (U.S. Patent 5,982,844A) in view of Swain et al. (U.S. Patent 5,448,608); and Claim 17 was rejected under 35 U.S.C. §103(a) as being unpatentable over Tybinkowski et al.

Before discussing the outstanding rejections, a brief review of Claim 1 according to the present invention is believed to be helpful. According to Claim 1, a gantry of an X-ray computer tomography apparatus includes an X-ray tube, an X-ray detector, a rotation ring mounting the X-ray tube and the X-ray detector, a ring frame rotatably supporting the rotation ring, a base, a plurality of main posts vertically mounted on the base and supporting the ring frame such that the rotation ring is positioned between the main posts, a plurality of props extending obliquely between the main posts for reinforcing the main posts under the rotation ring, and at least one electric member positioned in a space surrounded by the base, main posts and props, the at least one electric member including at least one of a power source unit configured to generate driver power to rotate the rotation ring and tilt the ring frame, a scan control unit configured to control a rotating operation of the rotation ring and a detecting operation of the X-ray detector, and a transmission unit configured to externally output a signal detected by the X-ray detector. By structuring as such, the props reinforce the main posts in the region just under the rotating ring, and the electric members, which are quite heavy, are located under the rotation ring, thereby more effectively suppressing vibration.

Tybinkowski et al. disclose a CT scanner drive system and bearing configuration. Tybinkowski et al., nevertheless, do not teach a plurality of props extending obliquely between the main posts for reinforcing the main posts under the rotation ring, and at least one electric member positioned in a space surrounded by the base, main posts and props ..., as recited in amended Claim 15. That is, the rotation ring is supported between a pair of main posts, props extending obliquely in the region which is between the main posts and just under the rotation ring, and the electric members are positioned in spaces defined by the base, main posts and props positioned as above. Although Tybinkowski et al. disclose the motor 46 arranged in the space defined by the base, main posts and props, Tybinkowski et al. do not disclose the structure described above. Therefore, the structure recited in Claim 1 is believed to be distinguishable from Tybinkowski et al.

Swain et al. also disclose a CT scanner, but do not teach a plurality of props extending obliquely between the main posts for reinforcing the main posts under the rotation ring, and at least one electric member positioned in a space surrounded by the base, main posts and props ..., as recited in amended Claim 15. Thus, the structure recited in Claim 1 is also believed to be distinguishable from Swain et al.

Because neither Tybinkowski et al. nor Swain et al. disclose the props as recited in Claim 1, even the combined teachings of these cited references would not in any way render the structure recited in Claim 1 obvious.

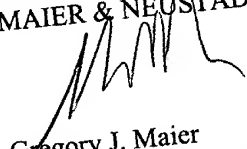
Likewise, Claims 16 and 17 have been amended to include subject matter substantially similar to what is recited in Claim 1 to the extent discussed above. Thus, Claims 16 and 17 are also believed to be distinguishable from Tybinkowski et al. and Swain et al.

For the foregoing reasons, Claims 1, 16 and 17 are believed to be allowable. Furthermore, since Claims 2-15 ultimately depend from Claim 1, substantially the same arguments set forth above also apply to these dependent claims. Hence, Claims 2-15 are believed to be allowable as well.

In view of the amendments and discussions presented above, Applicant respectfully submits that the present application is in condition for allowance, and an early action favorable to that effect is earnestly solicited.

Respectfully submitted,

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IN THE CLAIMS

A clean copy of the claims incorporating any amendment is shown below.

Please amend Claims 1, 16 and 17 as follows:

--1. (Four Times Amended) A gantry of an X-ray computer tomography apparatus comprising:

an X-ray tube;

an X-ray detector;

a rotation ring mounting said X-ray tube and said X-ray detector;

a ring frame rotatably supporting said rotation ring;

a base;

a plurality of main posts vertically mounted on said base and supporting said ring frame such that said rotation ring is positioned between said main posts;

a plurality of props extending obliquely between said main posts for reinforcing said main posts under the rotation ring; and

at least one electric member positioned in a space surrounded by said base, main posts and props, said at least one electric member including at least one of a power source unit configured to generate driver power to rotate said rotation ring and tilt said ring frame, a scan control unit configured to control a rotating operation of said rotation ring and a detecting

operation of said X-ray detector, and a transmission unit configured to externally output a signal detected by said X-ray detector.

16. (Four Times Amended) A gantry of an X-ray computer tomography apparatus comprising:

an X-ray tube;

an X-ray detector;

a rotation ring mounting said X-ray tube and said X-ray detector;

a ring frame rotatably supporting said rotation ring;

a base;

a plurality of main posts vertically mounted on said base and supporting said ring frame such that said rotation ring is positioned between said main posts; and

a plurality of reinforce members positioned between said main posts for reinforcing said main posts under the rotation ring; and

at least one electric member positioned in a space surrounded by said base, main posts and reinforce members, said at least one electric member including at least one of a power source unit configured to generate driver power to rotate said rotation ring and tilt said ring frame, a scan control unit configured to control a rotating operation of said rotation ring and a detecting operation of said X-ray detector, and a transmission unit configured to externally output a signal detected by said X-ray detector.

17. (Four Times Amended) A gantry of an X-ray computer tomography apparatus comprising:

an X-ray tube;

an X-ray detector;

a rotation ring mounting said X-ray tube and said X-ray detector;

a ring frame rotatably supporting said rotation ring;

a base;

a plurality of main posts vertically mounted on said base and supporting said ring frame such that said rotation ring is positioned between said main posts; and

a plurality of triangle blocks positioned between said main posts and configured to reinforce said main posts under the rotation ring; and

at least one electric member positioned in a space surrounded by said base, main posts and triangle blocks, said at least one electric member including at least one of a power source unit configured to generate driver power to rotate said rotation ring and tilt said ring frame, a scan control unit configured to control a rotating operation of said rotation ring and a detecting operation of said X-ray detector, and a transmission unit configured to externally output a signal detected by said X-ray detector.--